

Application No.: 10/505,314  
Amendment Dated: May 24, 2006  
Reply to Office Action of: January 26, 2006

## AMENDMENTS TO THE CLAIMS

### LISTING OF CLAIMS:

Claim 1. (Withdrawn) A process for producing levodione from ketoisophorone which comprises contacting ketoisophorone with NADPH dehydrogenase in the presence of NADH or NADPH in an aqueous medium, and isolating the resulted levodione from the reaction mixture.

Claim 2. (Withdrawn) The process according to claim 1, wherein the NADPH dehydrogenase is old yellow enzyme defined by the enzyme class EC 1.6.99.

Claim 3. (Withdrawn) The process according to claim 1, wherein the enzyme is obtainable from a microorganism suitable for the production of the NADPH dehydrogenase.

Claim 4. (Withdrawn) The process according to claim 3, wherein the microorganism is selected from the group of genera consisting of *Saccharomyces*, *Zygosaccharomyces*, *Candida*, *Gluconobacter*, *Beneckea*, and *Vibrio*.

Claim 5. (Withdrawn) The process according to claim 3, wherein the microorganism is *Saccharomyces cerevisiae*.

Application No.: 10/505,314  
Amendment Dated: May 24, 2006  
Reply to Office Action of: January 26, 2006

Claim 6. (Withdrawn) The process according to claim 3, wherein the microorganism is *Saccharomyces cerevisiae* S288C (ATCC 204508), a functional equivalent, subculture, mutant or variant thereof.

Claim 7. (Withdrawn) The process according to claim 1, wherein the NADPH dehydrogenase is old yellow enzyme encoded by an oye2 or oye3 gene derived from *Saccharomyces cerevisiae* S288C (ATCC 204508).

Claim 8. (Withdrawn) The process according to claim 1, wherein the reaction is carried out at pH values of from 4.5 to 8.5 and at a temperature in the range of from 20 to 40°C.

Claim 9. (Withdrawn) The process according to claim 1, wherein the reaction is carried out at pH values of from 5.0 to 8.0 and at a temperature in the range of from 25 to 35°C.

Claim 10. (Currently amended) A process for producing (6R)-2,2,6-trimethyl cyclohexane-1,4-dione (levodione) from ketoisophorone which comprises contacting ketoisophorone with a transformed microorganism expressing NADPH dehydrogenase or a cell-free extract thereof in the presence of NADH or NADPH in an aqueous medium, and isolating the obtained levodione from the reaction mixture, wherein the NADPH dehydrogenase expressed by the transformed microorganism is

Application No.: 10/505,314  
Amendment Dated: May 24, 2006  
Reply to Office Action of: January 26, 2006

old yellow enzyme encoded by an oye2 or oye3 gene derived from *Saccharomyces cerevisiae* S288C (ATCC 204508).

Claim 11. (Previously presented) The process according to claim 10, wherein the transformed microorganism is *Escherichia coli*.

Claim 12. (Cancelled).

Claim 13. (Original) The process according to claim 10, wherein the enzyme expressed by the transformed microorganism is derivable from a microorganism selected from the group consisting of the genera *Saccharomyces*, *Zygosaccharomyces*, *Candida*, *Gluconobacter*, *Beneckeia*, and *Vibrio*.

Claim 14. (Cancelled).

Claim 15. (Cancelled).

Claim 16. (Previously presented) The process according to claim 10, wherein the reaction is carried out at pH values of from 4.5 to 8.5 and at a temperature in the range of from 20 to 40°C.

Application No.: 10/505,314  
Amendment Dated: May 24, 2006  
Reply to Office Action of: January 26, 2006

Claim 17. (Previously presented) The process according to claim 10, wherein the reaction is carried out at pH values of from 5.0 to 8.0 and at a temperature in the range of from 25 to 35°C.

Claim 18. (Cancelled).

Claim 19. (Withdrawn) The process according to claim 2, wherein the enzyme is obtainable from a microorganism suitable for the production of the old yellow enzyme.

Claim 20. (Cancelled).

Claim 21. (Cancelled).